

FOTECOAT 1669

1. DESCRIPTION

- ♦ Water resistant screen emulsion with separate Diazo powder sensitizer
- ♦ Can be decoated with a high pressure water device
- ♦ Purple with good contrast

2. APPLICATIONS ADVANTAGES

- ♦ 36% solids content before sensitizing.
- ♦ Rather high viscosity (relatively thick)
- ♦ Suitable for all inks containing water only and no solvents
- ♦ Simple to use with good resolution and high definition



3. COATING TECHNIQUE AND STENCIL BUILD-UP (COATING TROUGH .75 MM R)

Mesh	Coating	Stencil Thickness below mesh
43 T monofilament	1/1, 2 face coats	14 µm
43 T monofilament	2/2	20 µm
77 T monofilament	2/3	24 µm
77 T monofilament	2/5	35 µm
120 T monofilament	1/2	10 µm
120 T monofilament	2/3	16 µm
120 T monofilament	2/3, 2 face coats	18 µm

It is recommended to let the sensitized emulsion degas during a few hours after sensitizing. This prevents air bubbles which could cause pinholes.

- ♦ The emulsion can be used for coating on an automatic coating machine
- ♦ If the emulsion is too thick, additional water can be added without changing the exposure time
- ♦ Coating again after an intermediate drying cycle improves the flatness of a stencil profile and does not increase substantially the stencil thickness. However the printing shoulders will keep contact with the substrate during the printing process; an improved printing result is achieved
- ♦ For negative image printing the stencil thickness should be increased by 3-4 µm compared with positive printing

4. STENCIL QUALITY

- ♦ The resolution is excellent and reaches approximately 60 microns
- ♦ The definition is very good
- ♦ After the wash-out the stencil is hard. It is possible to use a high pressure device for the wash-out
- ♦ A chemical hardening by FOTECHEM 2110 is possible. The water resistance and the wearing characteristics will improve. In such a case the stencil can no longer be decoated
- ♦ If better transparency is desired, FOTECOAT 1664 can be used. This emulsion is undyed, white, and can be used as such or be mixed with FOTECOAT 1669 to reach the needed transparency

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5. STORING

The freshness of the Diazo controls the pot life.

Age, transportation and storing conditions influence the quality of the emulsion drastically.

Condition	Service Life
Unsensitized, 18-25°C storage	18 months
Sensitized, stored at 20°C (pot life)	4 weeks
Pre-coated screens in total darkness at 20°C	1 week

6. EXPOSURE TIMES

5 kW metal halide lamp at 100 cm distance; photopolymer bulb at 100 hours operating time

Coating	Type of Mesh	Time (seconds)
1/2	120 T White	70
1/2	120 T Dyed	140
2/3	120 T White	100
2/3	120 T Dyed	160
2/3, 2 face coats	120 T Dyed	200
2/3	77 T Dyed	240
2/2	43 T White	260

7. STENCIL REMOVAL

All commercial decoaters can be used. A high pressure gun is recommended.

FOTECO offers several stencil removers:

- ♦ FOTECHEM 2004 liquid; FOTECHEM 2005 paste
- ♦ FOTECHEM 2042 concentrated liquid decoater (1:30) for machine decoating
- ♦ FOTECHEM 2048 is a more efficient liquid concentrate (1:30) for decoating
- ♦ FOTECHEM 2044 powder

Because of the hardness of the stencil the decoating medium should stand for 10-15 minutes on the stencil before it is washed-out. Under difficult conditions the removal operation has to be repeated.

If decoating equipment is used a higher concentrated solution is necessary and a degreasing cycle before decoating is recommended.

Ghost pictures can be removed with FOTECHEM 2085 (blend of emulsifying solvents) followed by FOTECHEM 2080 (high alkaline paste).

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